



Coastal Protection and  
Restoration Authority of Louisiana

# Southeast Louisiana Project Update

## CPRA Board Meeting

Belle Chasse, LA

October 18, 2017

John Troutman

CPRA Operations Division

New Orleans Regional Office



**committed to our coast**

# Overview

- **Construction**
  - CWPPRA
  - NRDA Early Restoration Projects
- **Engineering and Design**
  - CWPPRA
  - Oil Spill (NFWF, NRDA, & RESTORE)
- **Hurricane Protection Projects**
- **'17 Hurricane Response**



Coastal Protection and  
Restoration Authority of Louisiana



## Southeast Louisiana Projects



## Southeast Louisiana Project Update

# PROJECTS RECENTLY CONSTRUCTED AND IN CONSTRUCTION

**(BA-0034-2) Hydrologic Restoration and Veg Planting in the Des Allemands Swamp**

**(BA-0164) Bayou Dupont Sediment Delivery Marsh Creation #3**

**(BS-0016) Lake Lery Shoreline and Marsh Restoration**

**(PO-0104) Bayou Bonfouca Marsh Creation**

**(BA-0076) Cheneir Ronquille Barrier Island Restoration**

**(BA-0111) Shell Island – West Barrier Island Restoration**



# Southeast Louisiana Projects - Construction

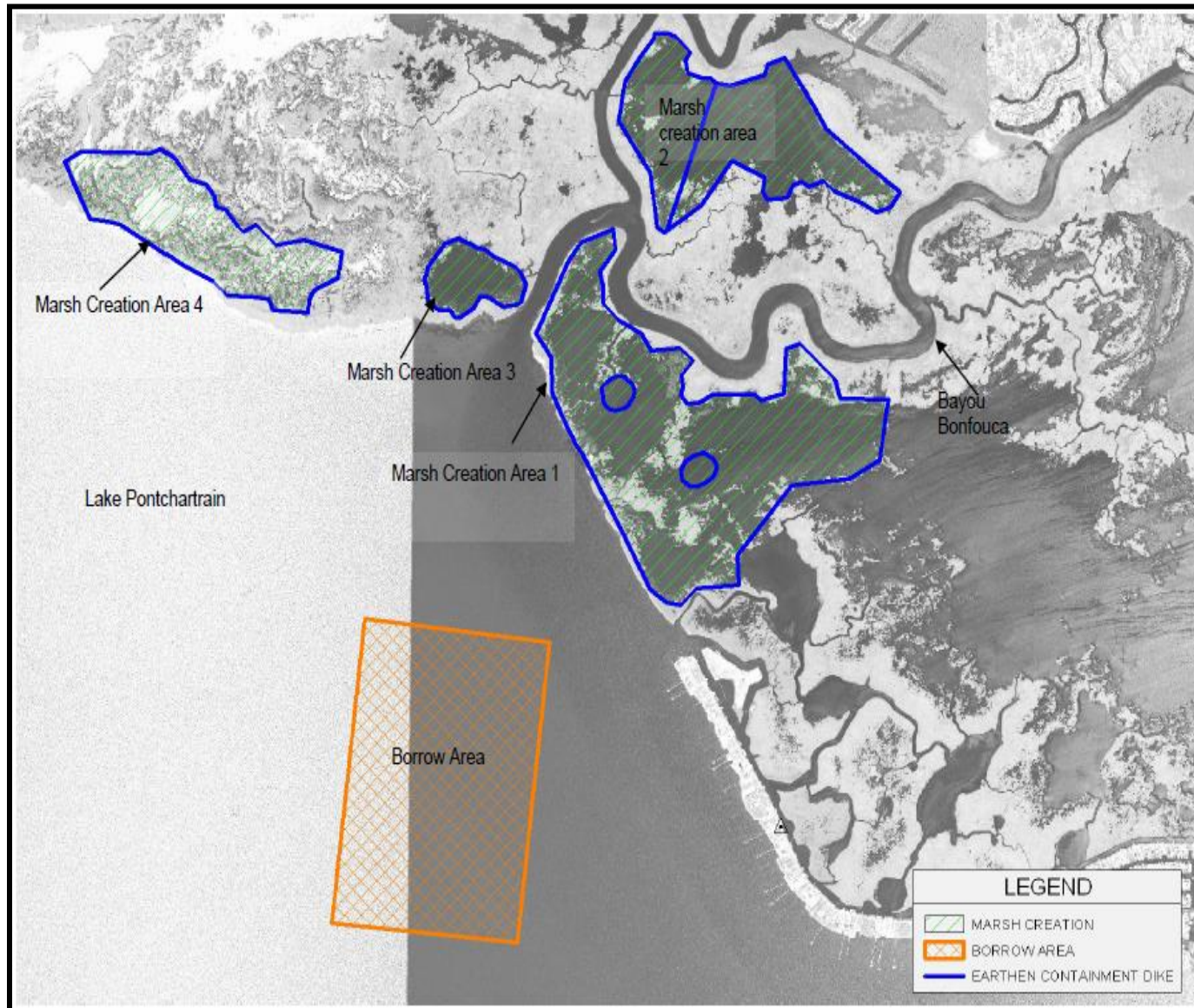


# Bayou Bonfouca Marsh Creation (PO-104)

- **Project Features:**
  - 424 acres of Marsh Creation
  - Approx. 500 acres of Marsh Nourishment
- **Funding:**
  - CWPPRA
- **Construction:**
  - Contractor – Weeks Marine, Inc.
  - Construction Completion by February 2018
- **Project Total Cost:**
  - \$29.2 Million

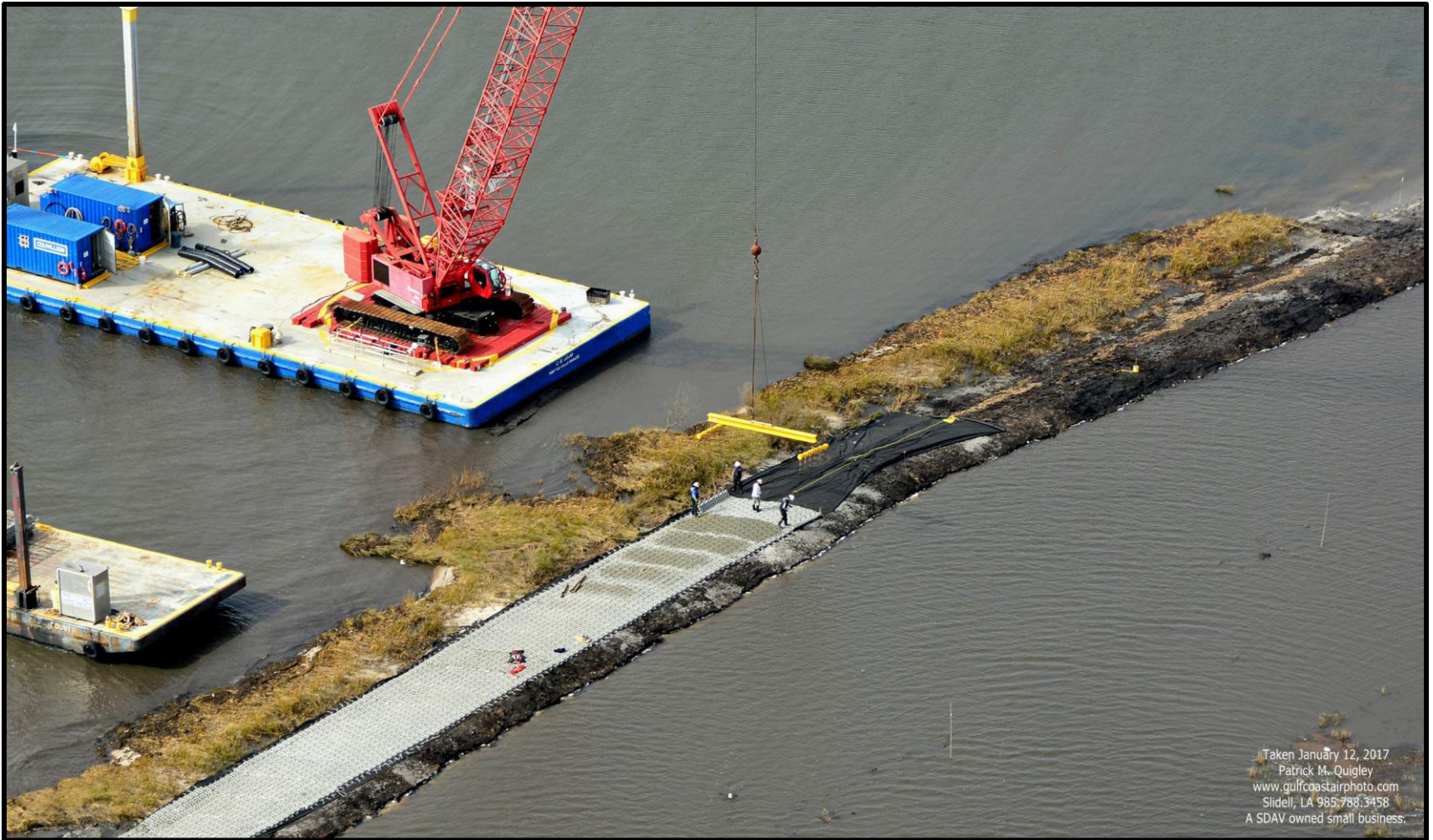


# Bayou Bonfouca Marsh Creation (PO-104)





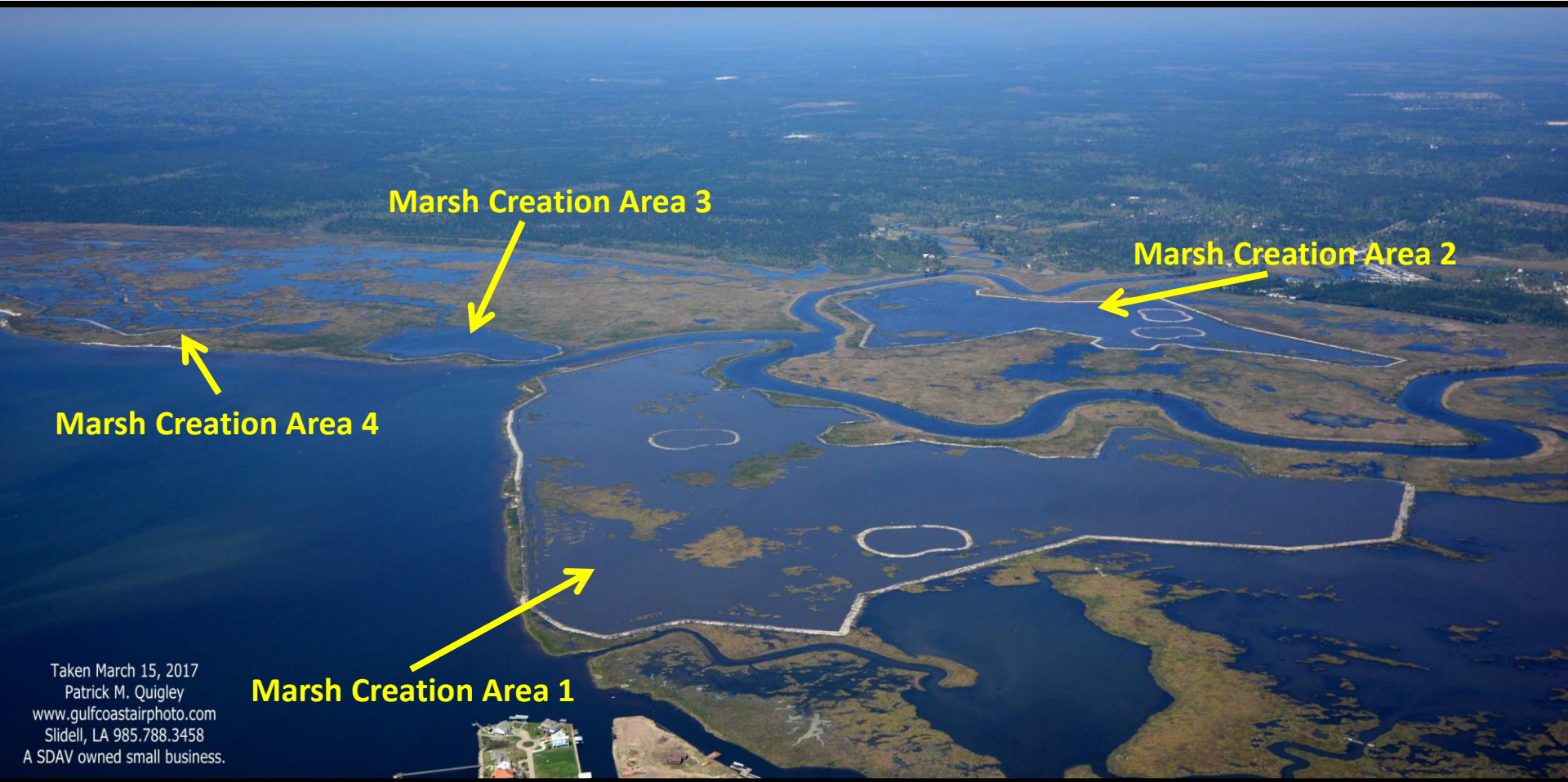
# Bayou Bonfouca Marsh Creation (PO-104)



Taken January 12, 2017  
Patrick M. Quigley  
www.gulfcoastairphoto.com  
Slidell, LA 985-788-3458  
A SDAV owned small business.



# Bayou Bonfouca Marsh Creation (PO-104)



Taken March 15, 2017  
Patrick M. Quigley  
[www.gulfcoastairphoto.com](http://www.gulfcoastairphoto.com)  
Slidell, LA 985.788.3458  
A SDAV owned small business.



# Bayou Bonfouca Marsh Creation (PO-104)





# Bayou Bonfouca Marsh Creation (PO-104)



# Hydrologic Restoration and Vegetative Planting Des Allemands Swamp (BA-34-2)

- **Project Features:**

- Excavation of 8 Spoil Bank Gaps (-1.0' deep, 50' bottom, 100' top)
- Spoil Disposal Area (+2.0' NAVD88 Max.)
- Disposal Areas to be planted with Bald Cypress and Water Tupelo

- **Construction:**

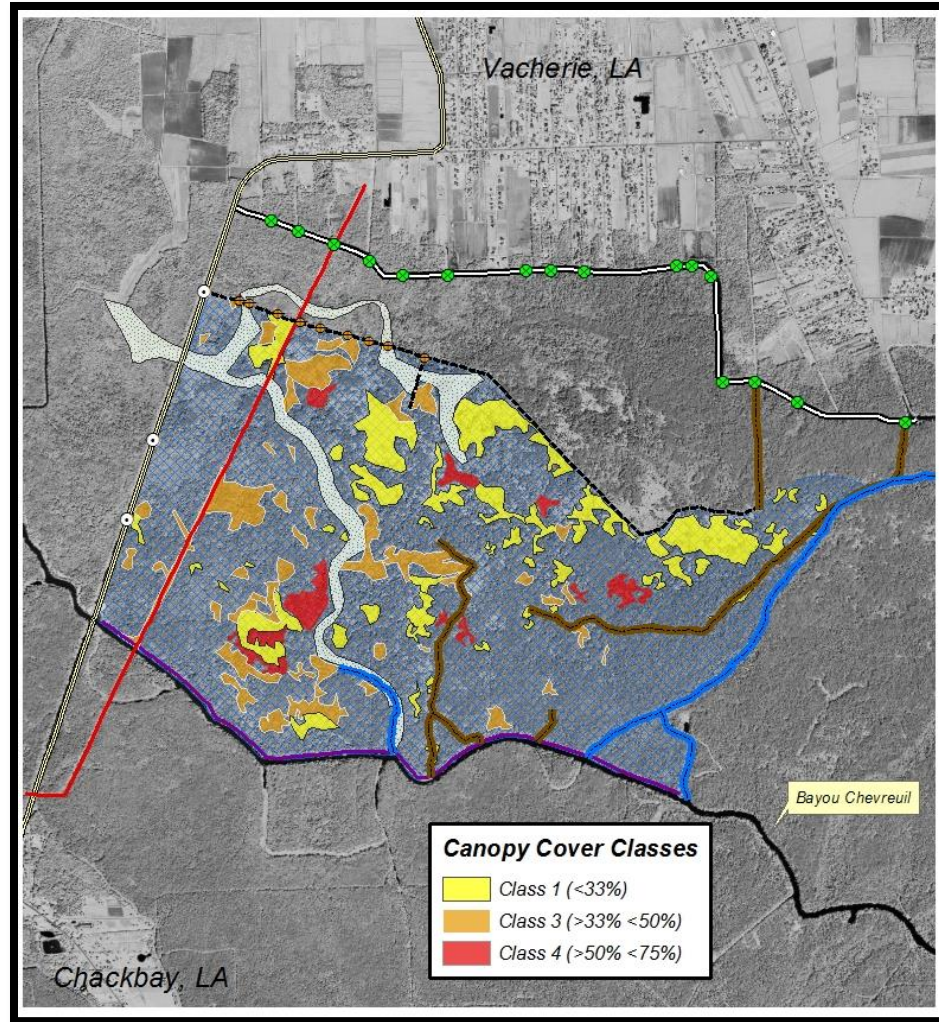
- Contractor – Magnolia Dredge & Dock, LLC of Mandeville
- NTP Issued – September 26, 2017 and contractor mobilized
- Estimate Construction End – February 12 2018

- **Total Project Cost:**

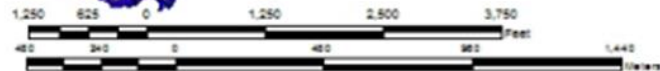
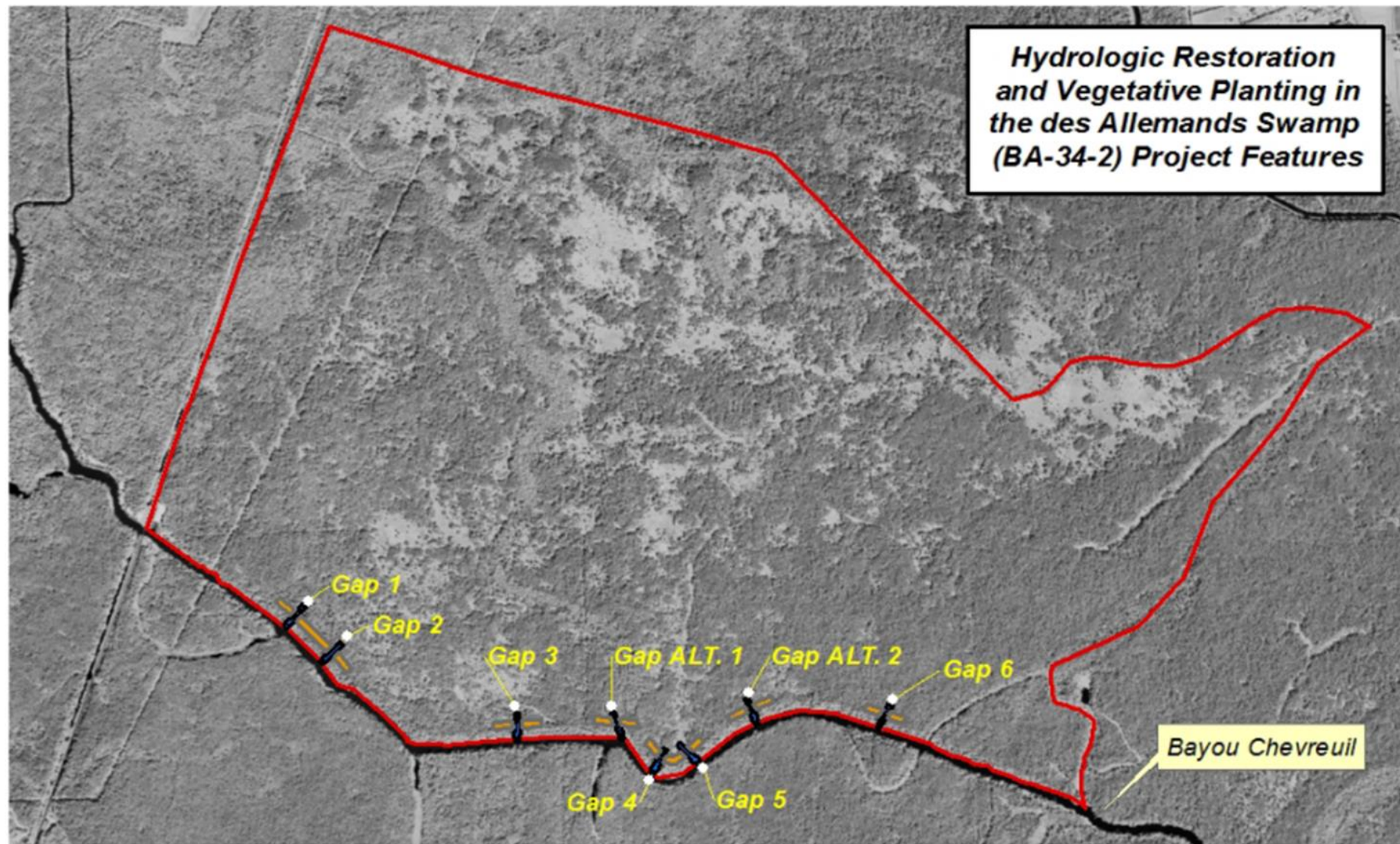
- \$6.2 Million - CWPPRA



# Hydrologic Restoration and Vegetative Planting Des Allemands Swamp (BA-34-2)



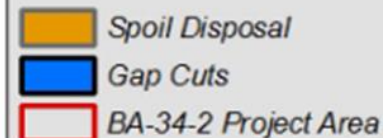
**Hydrologic Restoration  
and Vegetative Planting in  
the des Allemands Swamp  
(BA-34-2) Project Features**



Data Source:  
Coastal Protection and  
Restoration Authority of LA  
Operations

2013 NAIP

Date: June 23, 2015  
Map ID: 2015-TRO-026





# Hydrologic Restoration and Vegetative Planting Des Allemands Swamp (BA-34-2)



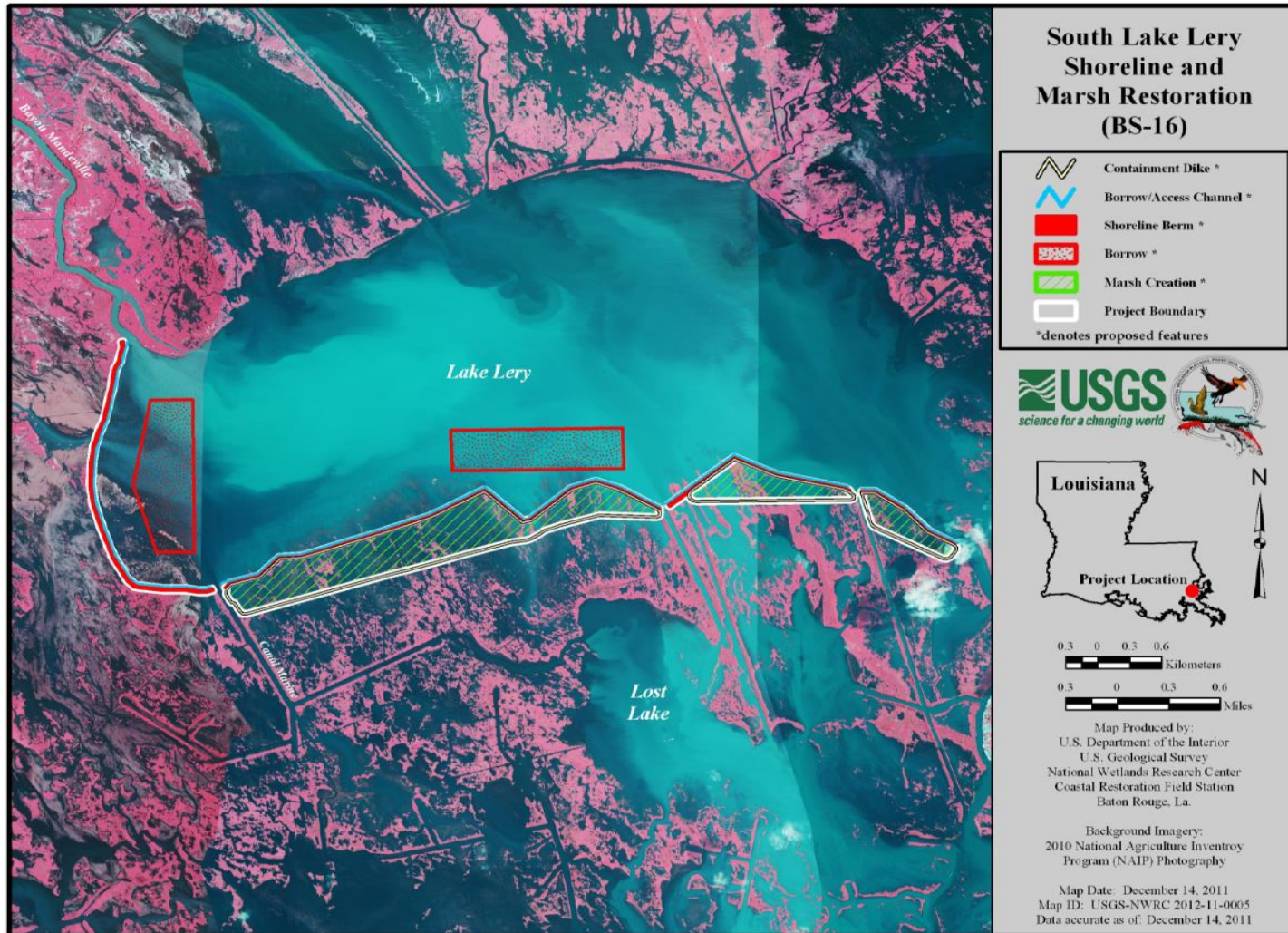
## BA-0034-2 Gap and Spoil Placement Design

# South Lake Lery Shoreline and Marsh Creation (BS-16)

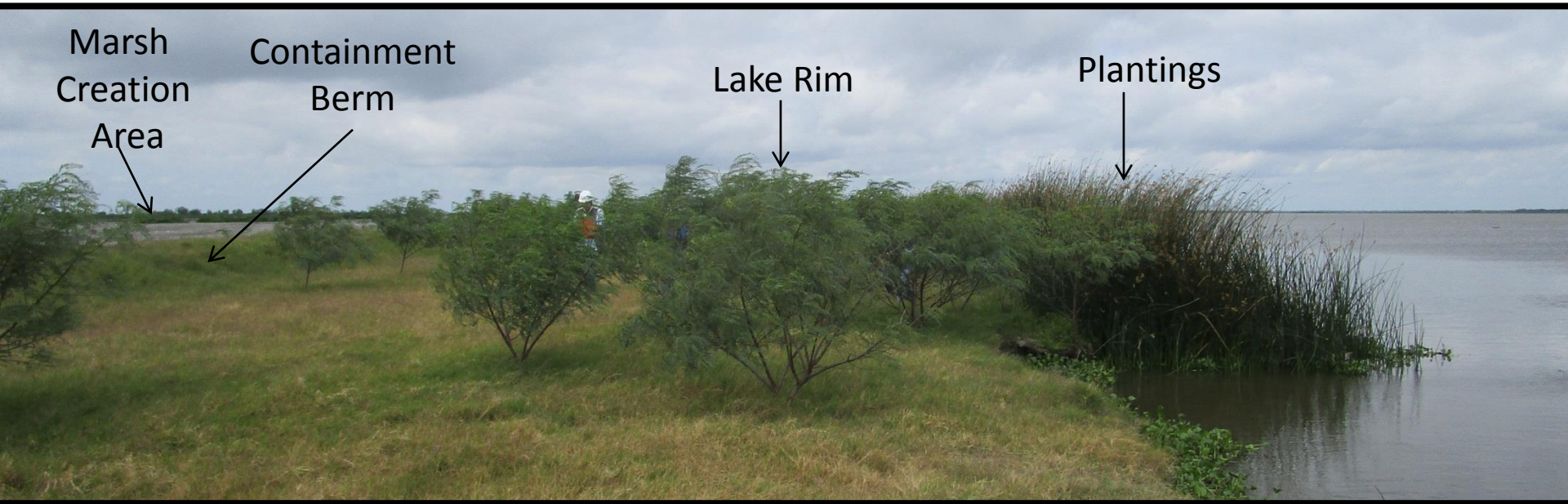
- **USFWS Project Lead**
- **Project Features:**
  - 520 acres of marsh creation
  - 35,843 Linear Feet of Shoreline Restoration (6.8 miles)
- **Lake Rim:**
  - 50 ft. crown width
  - 3' NAVD elevation
  - Vegetation Planting
- **Project Cost:**
  - \$33.72 Million - CWPPRA



# South Lake Lery Shoreline and Marsh Creation (BS-16)



# South Lake Lery Shoreline and Marsh Creation (BS-16)





# South Lake Lery Shoreline and Marsh Creation (BS-16)



# Bayou Dupont Sediment Delivery Marsh Creation #3 and Terracing (BA-164)

- **Project Features:**

- 137 acres of Marsh Creation
  - Borrow: Mississippi River Sediment (Alliance Anchorage)
- 9,679 linear feet of Terraces (14 terraces)
  - Borrow: in-situ sediment

- **Project Status:**

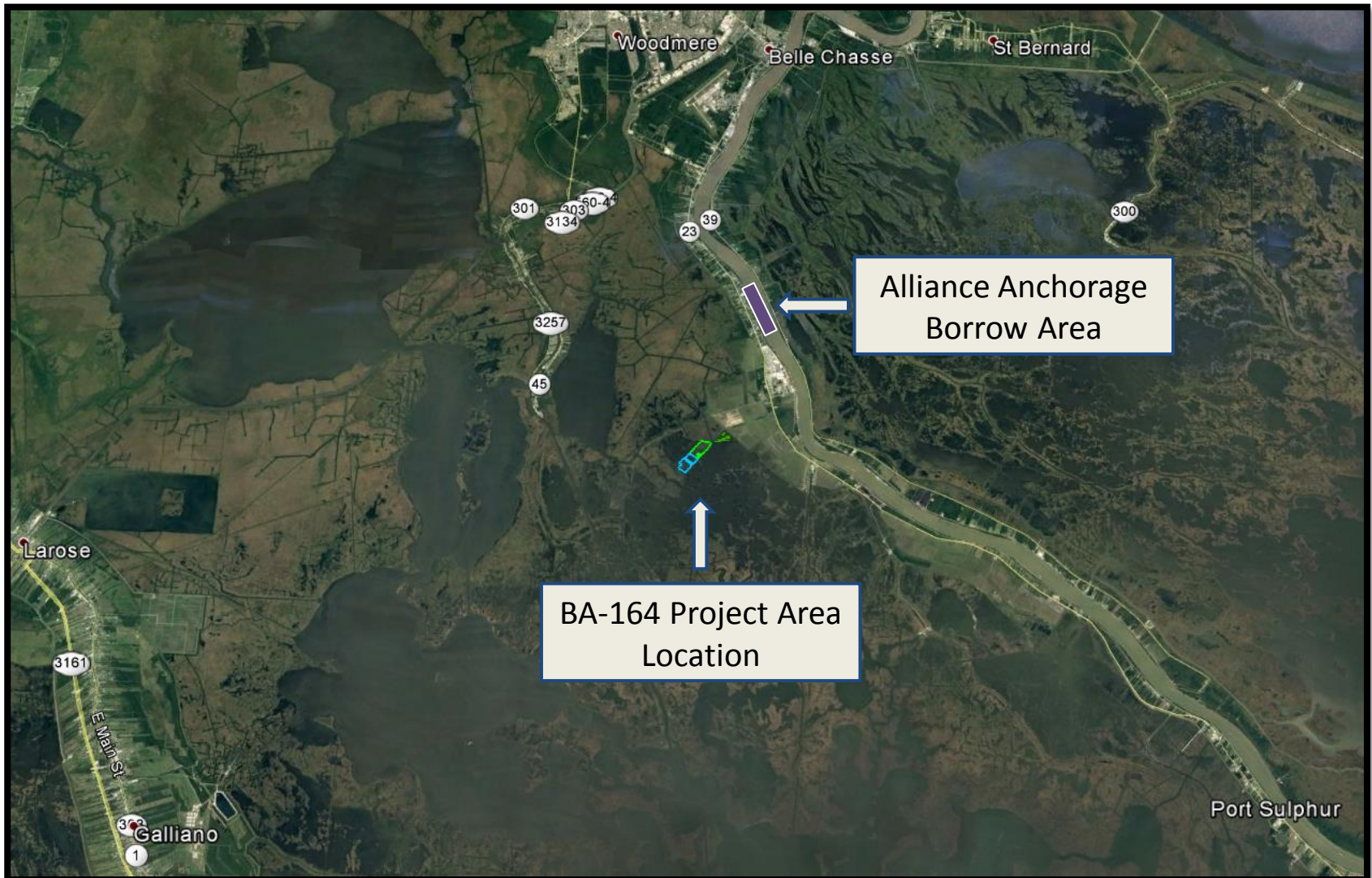
- Project construction is complete
  - Marsh creation: completed August 2016
  - Terraces: completed June 2017
  - **Planting of terraces: Spring 2018**

- **Project Costs:**

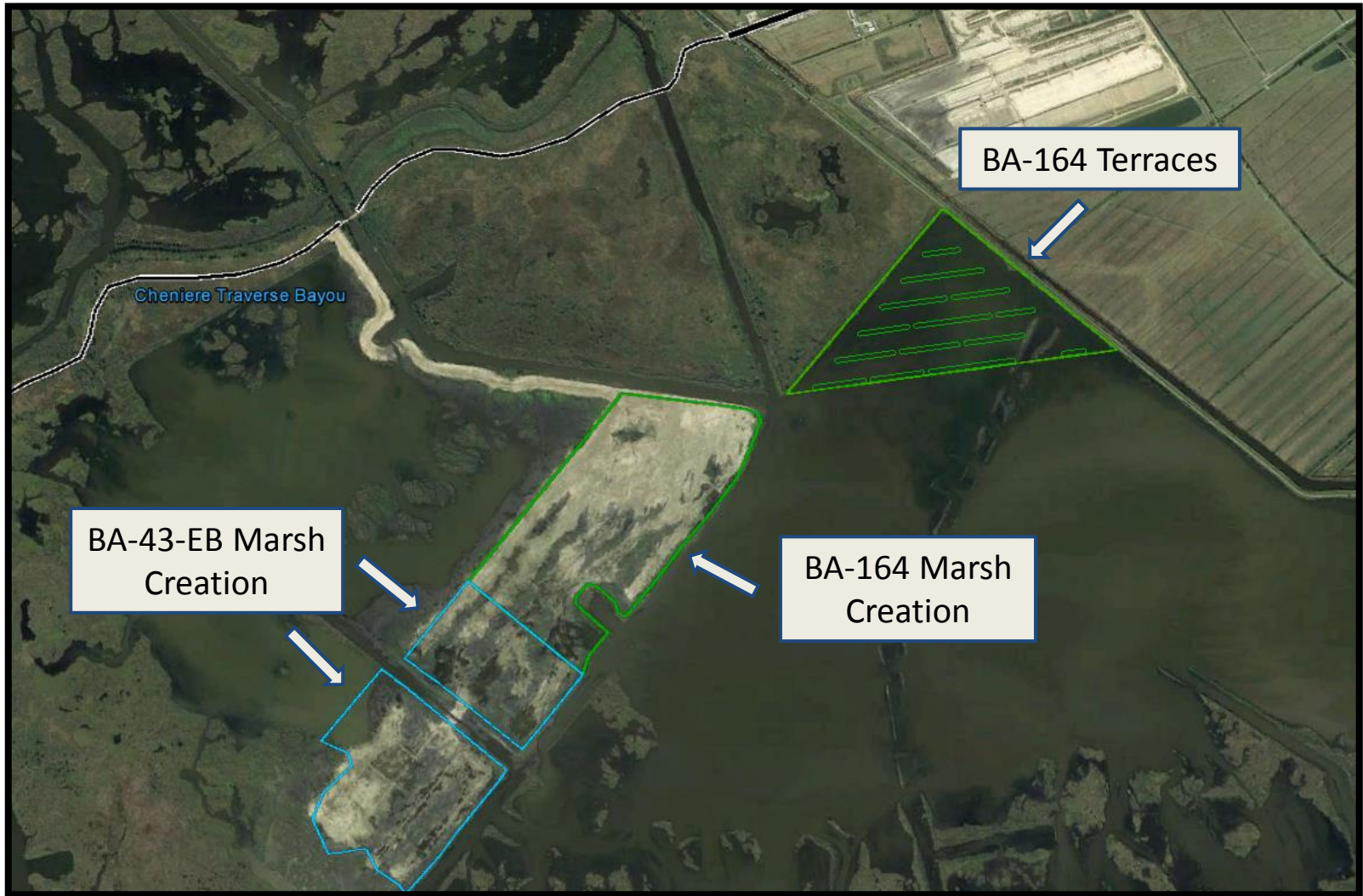
- Total Cost: \$18.7 Million - CWPPRA



# Bayou Dupont Sediment Delivery Marsh Creation #3 and Terracing (BA-164)



# Bayou Dupont Sediment Delivery Marsh Creation #3 and Terracing (BA-164)





# Bayou Dupont Sediment Delivery Marsh Creation #3 and Terracing (BA-164)

## *Marsh Creation*



Taken July 30, 2017  
Patrick M. Quigley  
[www.gulfcoastairphoto.com](http://www.gulfcoastairphoto.com)  
Slidell, LA 985.788.3458  
A SDAV owned small business.

# Bayou Dupont Sediment Delivery Marsh Creation #3 and Terracing (BA-164)

## *Terraces*



Taken July 30, 2017  
Patrick M. Quigley  
[www.gulfcoastairphoto.com](http://www.gulfcoastairphoto.com)  
Slidell, LA 985.788.3458  
A SDAV owned small business.



# Shell Island-West Barrier Island Restoration (BA-111)

- **Project Features:**

- East Lobe:

- 8,100 linear feet of Beach/Dune
    - 154 acres of Marsh Creation

- West Lobe:

- 6,300 linear feet of Beach/Dune
    - 133 acres of Marsh Creation

- Total fill: 5,772,027 cubic yards

- **Project Status:**

- Notice to Proceed: Sept. 22, 2015
  - Construction Completion: July 10, 2017

- **Project Cost:**

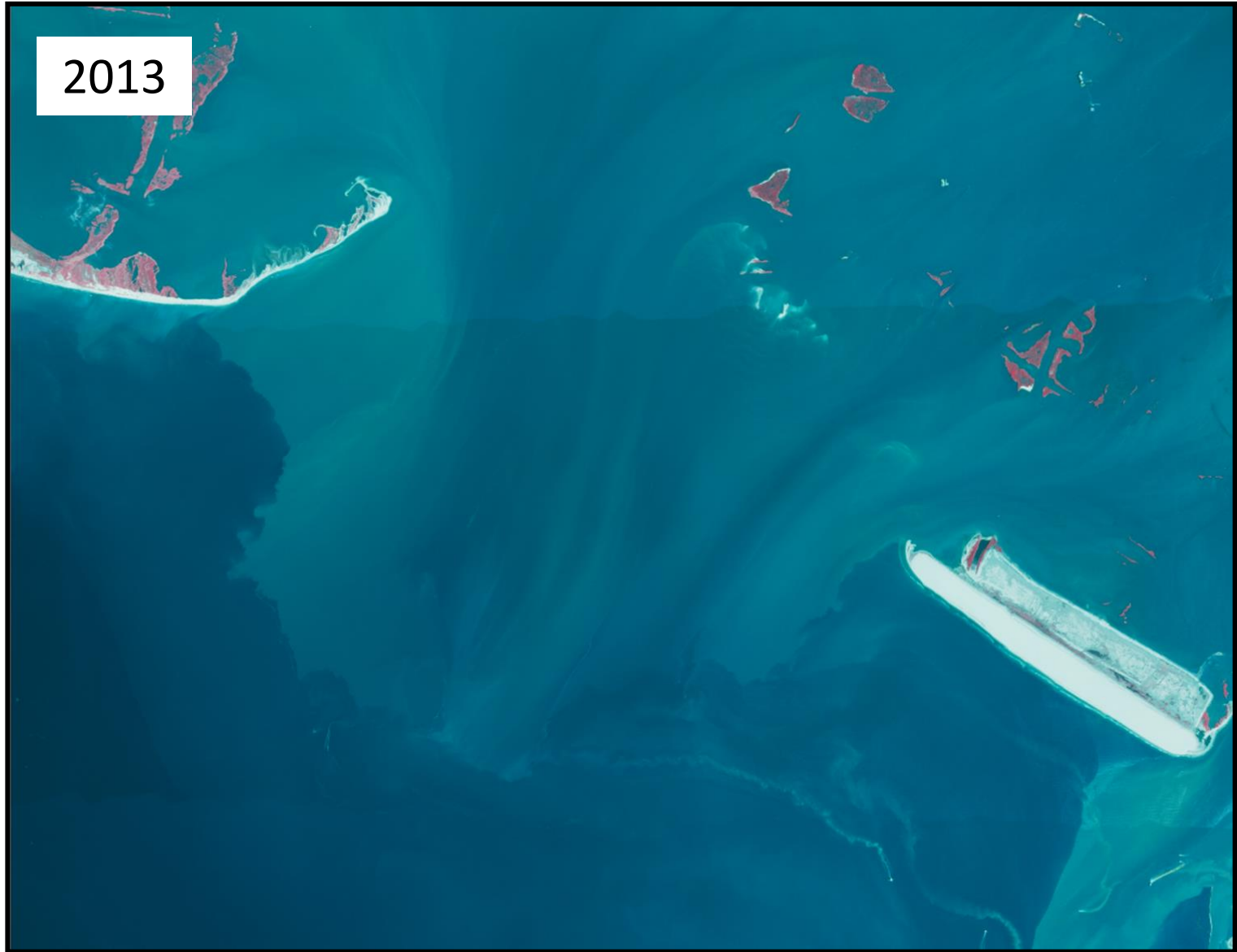
- \$72 M

# Shell Island-West Barrier Island Restoration (BA-111)

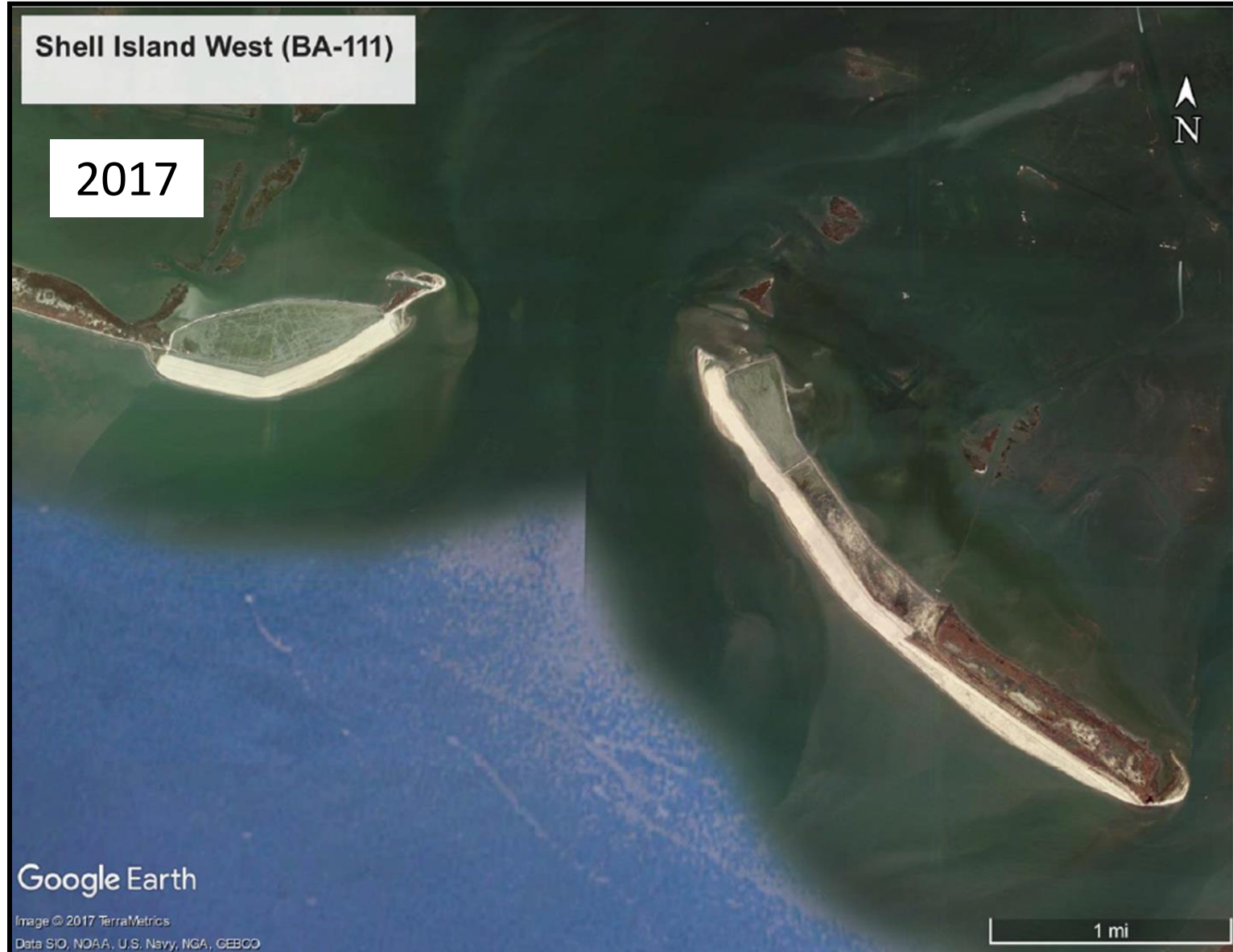




# Shell Island-West Barrier Island Restoration (BA-111)



# Shell Island-West Barrier Island Restoration (BA-111)





# Chenier Ronquille Barrier Island Restoration (BA-76)

- **Project Lead for Construction- NMFS**
- **Project Features:**
  - 212 ac. beach/dune habitat (1.9M yd<sup>3</sup> fill)
  - 306 ac. back barrier marsh habitat (1.1M yd<sup>3</sup> fill)
- **Project Status:**
  - Construction Start – May 2016
  - Construction Complete – Mar. 2017
  - Vegetative Plantings – Mar. 2018 (O&M)
- **Cost:**
  - Total Cost – \$35 M

# Chenier Ronquille Barrier Island Restoration (BA-76)





# Chenier Ronquille Barrier Island Restoration (BA-76)



# Chenier Ronquille Barrier Island Restoration (BA-76)



Chenier Ronquille Project Area (facing West)



Southeast Louisiana Project Update

# **ENGINEERING & DESIGN: CWPPRA NRDA, NFWF, & RESTORE**

## Southeast Louisiana Project Update

# CWPPRA PROJECTS IN ENGINEERING & DESIGN

**BA-0125 Northwest Turtle Bay Marsh Creation**

**BA-0193 Caminada Headlands Bac Barrier Marsh Creation Increment 2**

**BA-0194 East Leeville Marsh Creation And Nourishment**

**BA-0195 Barataria Bay Rim Marsh Creation And Nourishment**

**PO-0075 Labranche East Marsh Creation**

**PO-0133 Labranche Central Marsh Creation**

**PO-0169 New Orleans Landbridge Shoreline Stabilization And Marsh Creation**

**PO-0173 Fritchie Marsh Creation And Terracing**

**PO-0178 Bayou La Loutre Ridge Restoration And Marsh Creation**

**PO-0179 St. Catherine Island Marsh Creation And Shoreline Protection**



Southeast Louisiana Project Update

# **NATIONAL FISH AND WILDLIFE FOUNDATION (NFWF)**

**(BA-0153) Mid-Barataria Sediment Diversion**

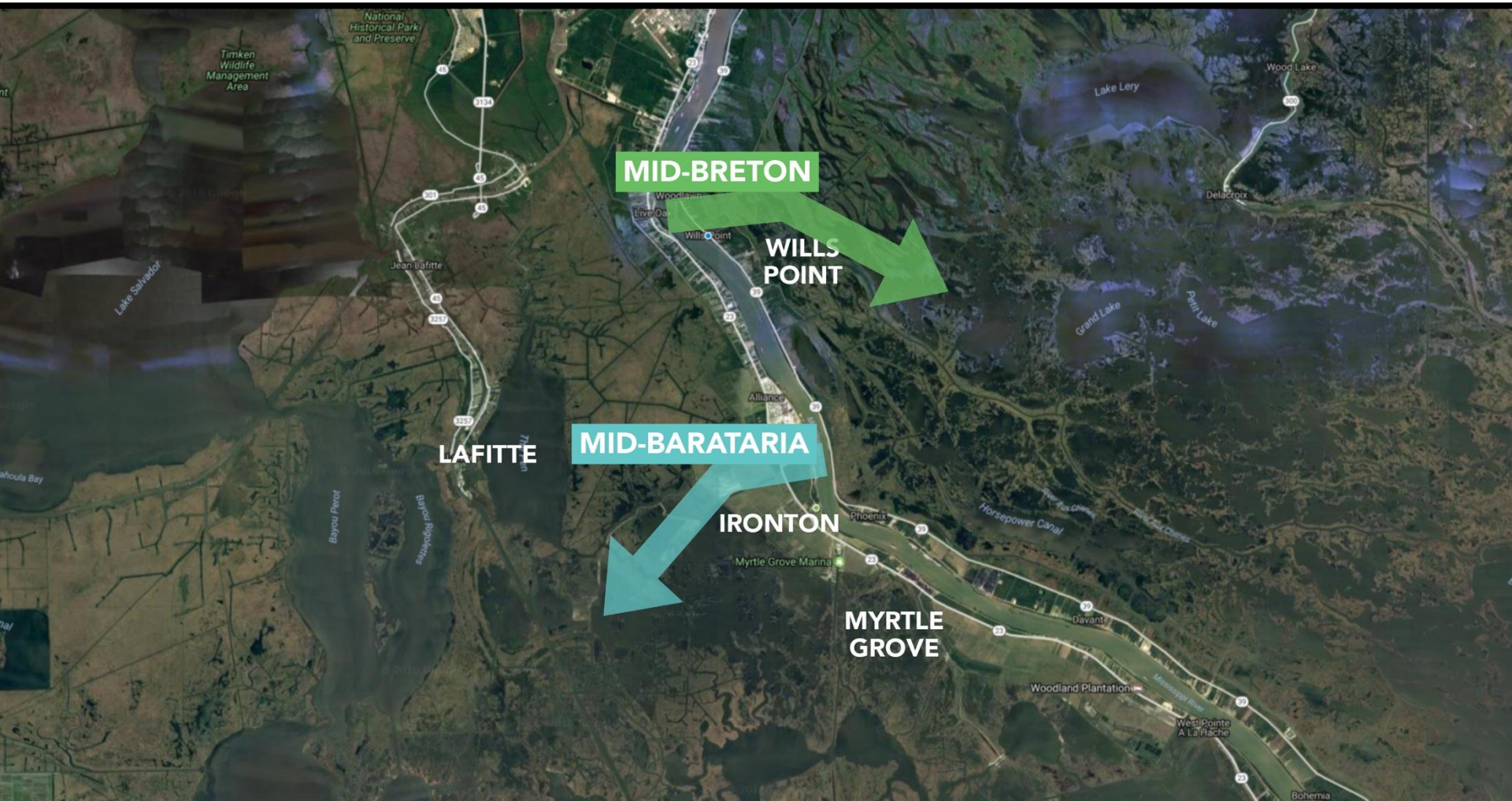
**(BS-0030) Mid-Breton Sediment Diversion**

# Southeast Louisiana Projects - NFWF



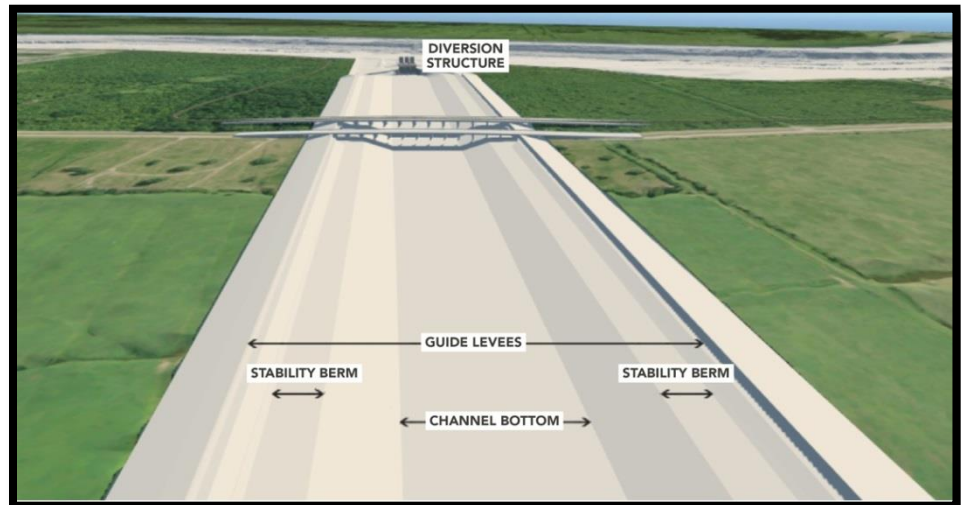
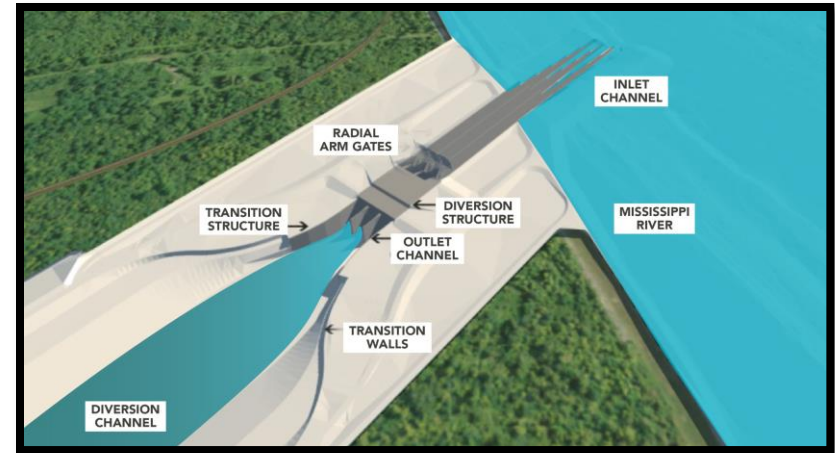


# MID-BASIN SEDIMENT DIVERSION PROGRAM



# Mid-Barataria Sediment Diversion (BA-153)

- Structure Type
  - Gated Open Channel Structure
- Peak Flow
  - 75,000 cfs
- Base Flow
  - 5,000 cfs





# Mid-Breton Sediment Diversion (BS-30)

- Structure Type
  - Gated Open Channel Structure
- Peak Flow
  - 35,000 cfs
- Base Flow
  - TBD





Southeast Louisiana Project Update

# **NATURAL RESOURCES DAMAGE ASSESSMENT (NRDA)**

- (BA-0202) Queen Bess Island Restoration**
- (BA-0203) Barataria Basin Ridge and Marsh Creation - Spanish Pass Increment**
- (PO-0180) Lake Borgne Marsh Creation – Increment One**

# Southeast Louisiana Projects – NRDA



# Lake Borgne Marsh Creation - Increment One (PO-180)

- **Project Features:**

- Create 1,548 acres of marsh

- **Project Status & Anticipated Schedule:**

- Duplantis Design Group - E&D Contractor
- 95% Design – Mid 2020
- Final Design and Bid Documents – Late 2021

- **Project Costs:**

- E&D Phase Cost: \$7 Million
- Total Project Cost: \$127 Million



# Lake Borgne MC - Increment One (PO-180)



# Queen Bess Island Restoration (BA-202)

- **Project Goals/Features:**

- Create a sustainable rookery and a sanctuary for water birds
  - 26.8 acres of habitat for colonial nesting water birds and pelicans
  - 9.2 acres of habitat nesting terns and skimmers
- post-construction vegetative planting

- **Anticipated Schedule:**

- Engineering & Design Complete – November 2018
- Construction Start – September 2019

- **Project Cost:**

- \$2.5 Million E&D
- 17.5 Million Constructed (estimated)

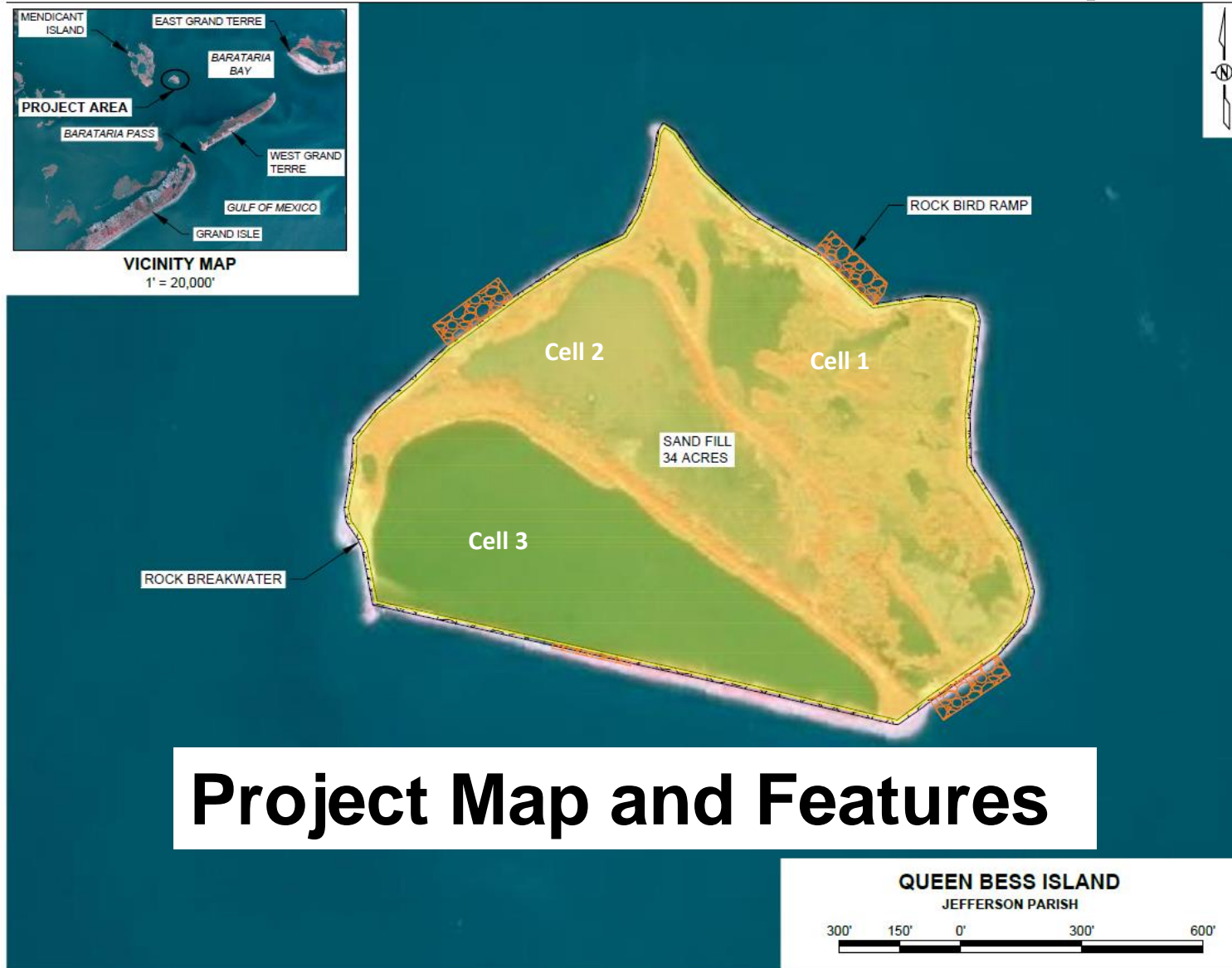


# Queen Bess Island Restoration (BA-202)





# Queen Bess Island Restoration (BA-202)



# Barataria Basin Ridge & Marsh Creation Spanish Pass (BA-203)

- **Project Features:**

- Ridge and marsh creation project near Venice LA
- To create 1,250 acres of marsh and ridge habitat

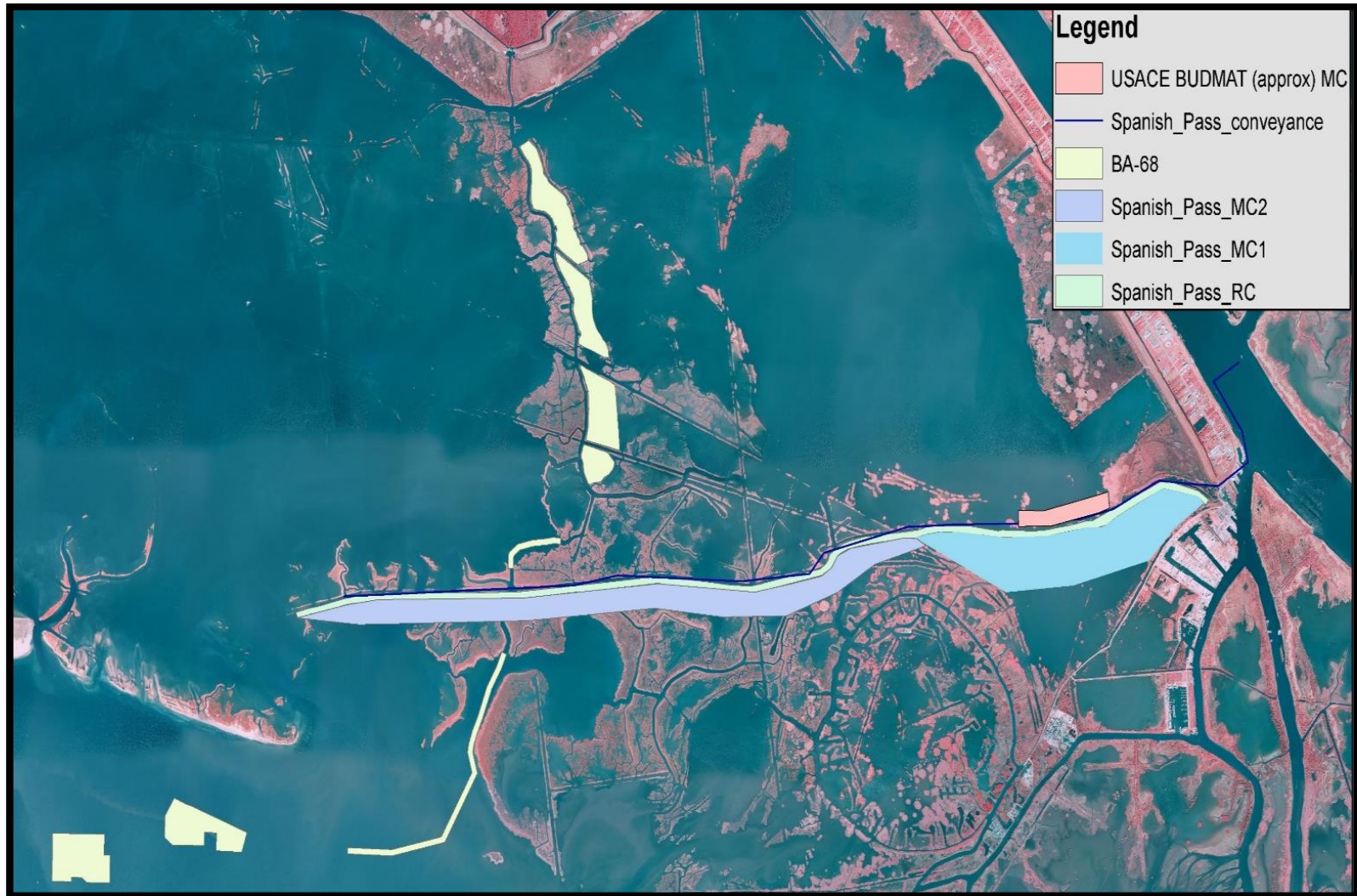
- **Project Status and Anticipated Schedule:**

- Currently establishing E&D contract with Baird and Associates
- Project is expected to go to construction end of 2019

- **Project Cost:**

- \$4.5 Million E&D
- \$124.5 Million Construction (estimated)

# Barataria Basin Ridge & Marsh Creation Spanish Pass (BA-203)





# **RESOURCES AND ECOSYSTEM SUSTAINABILITY, TOURISTS OPPORTUNITIES, AND REVIVED ECONOMIES OF THE GULF STATES (RESTORE)**

**BA-0197 West Grand Terre Beach Nourishment and Stabilization**

**PO-0029 River Reintroduction into Maurepas Swamp**

**PO-0163 Golden Triangle Marsh Creation**

**PO-0174 Biloxi Marsh Living Shoreline Project**

# Southeast Louisiana Projects - RESTORE

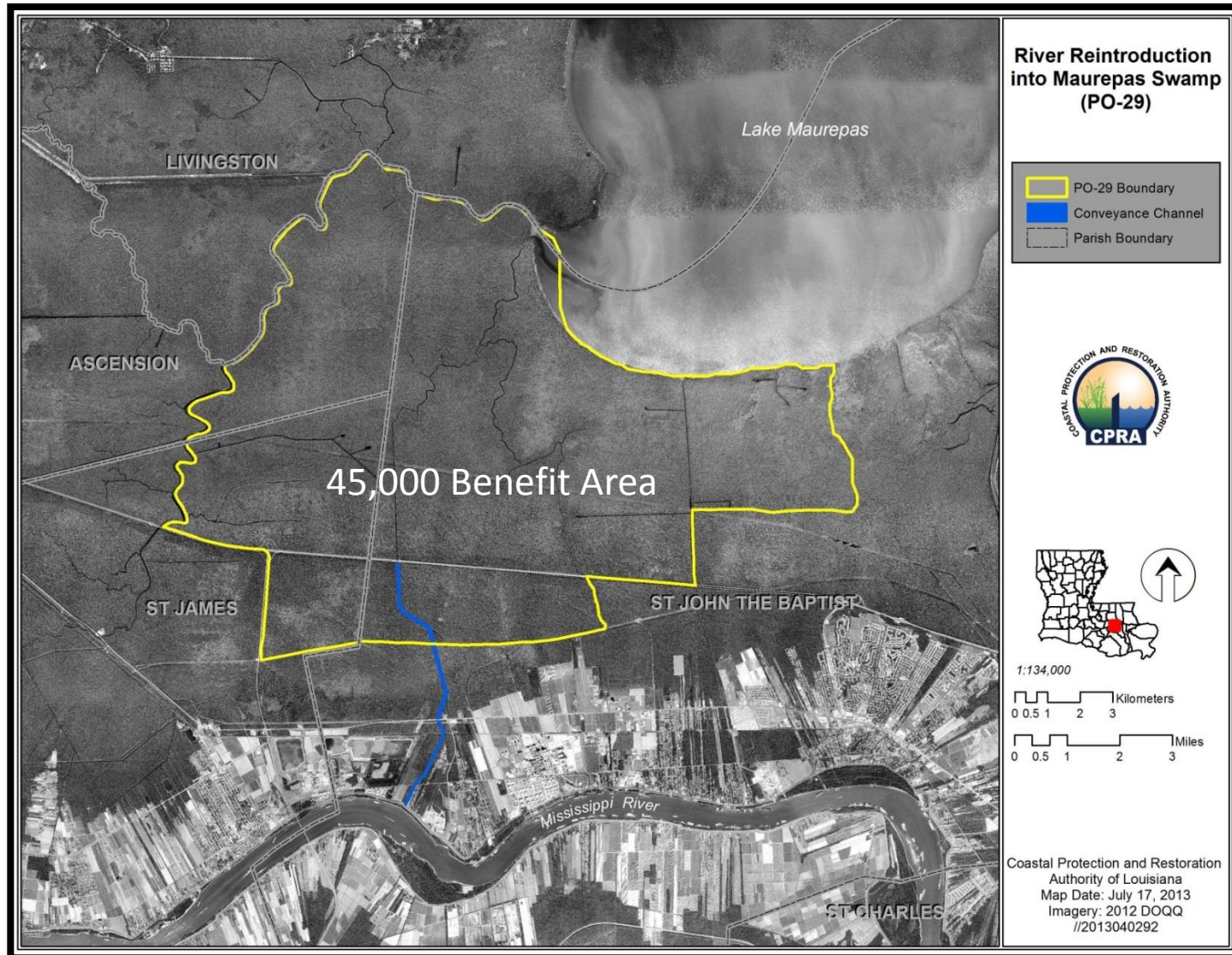


# River Reintroduction Into Maurepas Swamp (PO-29)

- **Project Features (major):**
  - Gated Diversion structure (2,000 cfs)
  - Conveyance channel with guide levees
- **Project Status and Anticipated Schedule:**
  - September 2017 - RESTORE Funding for E&D
  - 2017-2020: Permitting, Landrights, Final Design, Pre-construction Monitoring and Modeling
- **Project Cost:**
  - \$24 Million E&D
  - \$175 M Construction (estimated)



# River Reintroduction Into Maurepas Swamp (PO-29)



# River Reintroduction Into Maurepas Swamp (PO-29)



- Mississippi River Intake
- Headworks
- River Road Crossing
- Sedimentation Basin
- CNN RR Crossing
- Conveyance Channel
- KCS Railroad
- Airline Highway Crossing
- I-10 Crossing
- Ancillary Features
  - Lateral Release Valves
  - Check Valves Under I-10
  - Weirs At Bayou Secret & Bourgeois Canal
  - Embankment Cuts

# Golden Triangle Project (PO-163)

- **Project Features:**

- Restore and protect wetland, fish, and wildlife habitat and help maintain landscape integrity and enhance community resilience.
- E&D for 600 acres of marsh creation
- Borrow Source: Lake Borgne

- **Project Status & Anticipated Schedule:**

- Data Collection underway
- Completion of Final Design: Late 2019
- Begin Construction: Fall 2020

- **Project Costs:**

- E&D Phase Cost: \$4.7 million
- Construction Cost: \$50 million (estimated)



# Golden Triangle Project (PO-163)



# Biloxi Marsh Living Shoreline (PO-0174)

- **Project Features:**

- 9-11 miles of living shoreline structures

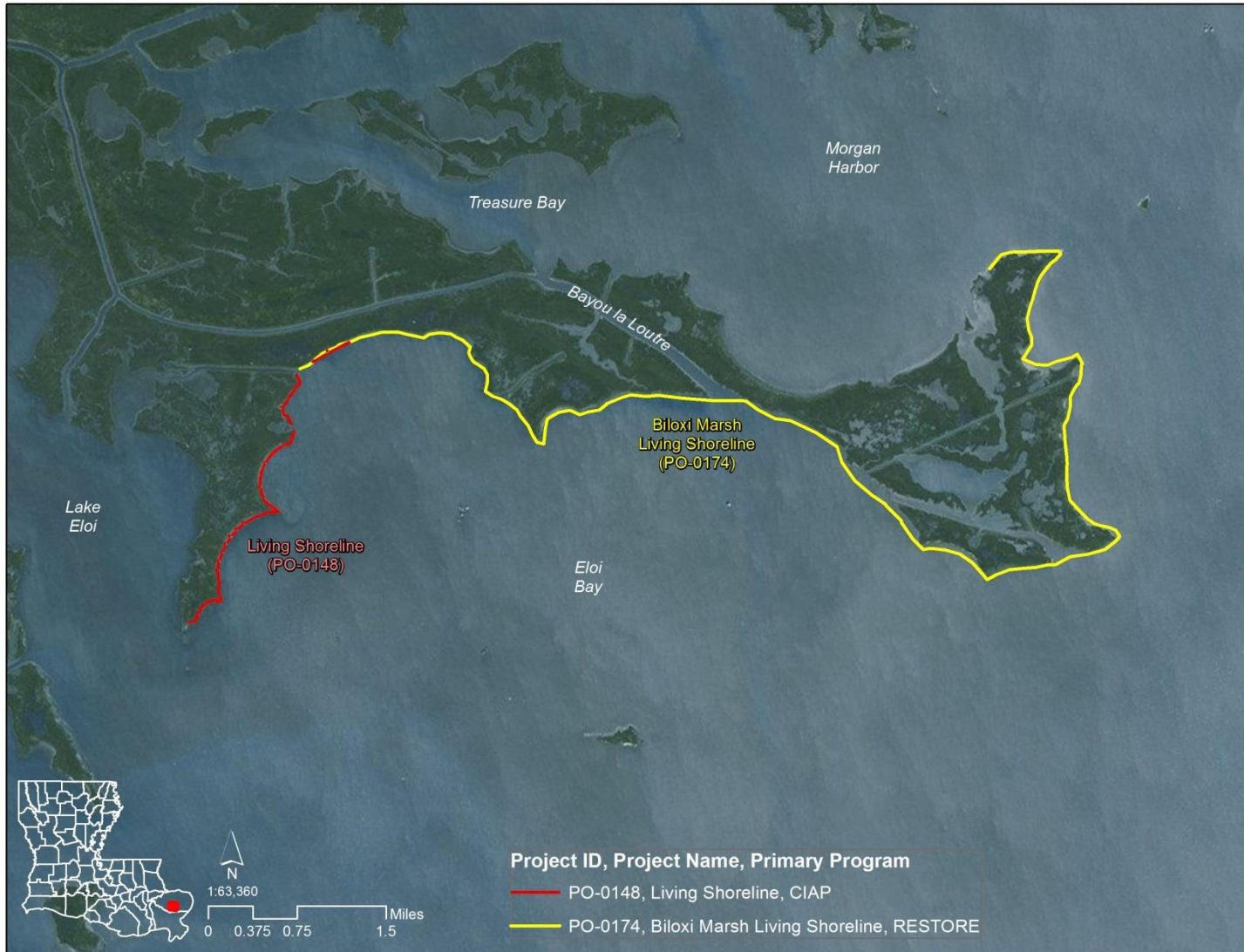
- **Project Costs:**

- \$ 3.2 M awarded for E&D
- \$57.7M total (estimated)

- **Project Status & Anticipated Schedule:**

- NTP to design engineer Mott McDonald issued April, 2017
- Anticipate Construction in late 2019

# Biloxi Marsh Living Shoreline (PO-0174)





# West Grand Terre Restoration (BA-197)

- **Project Features:**

- Restore 235 acres (12,000 linear feet) of beach and dune habitat and 66 acres of back barrier marsh.
- Protection of Fort Livingston

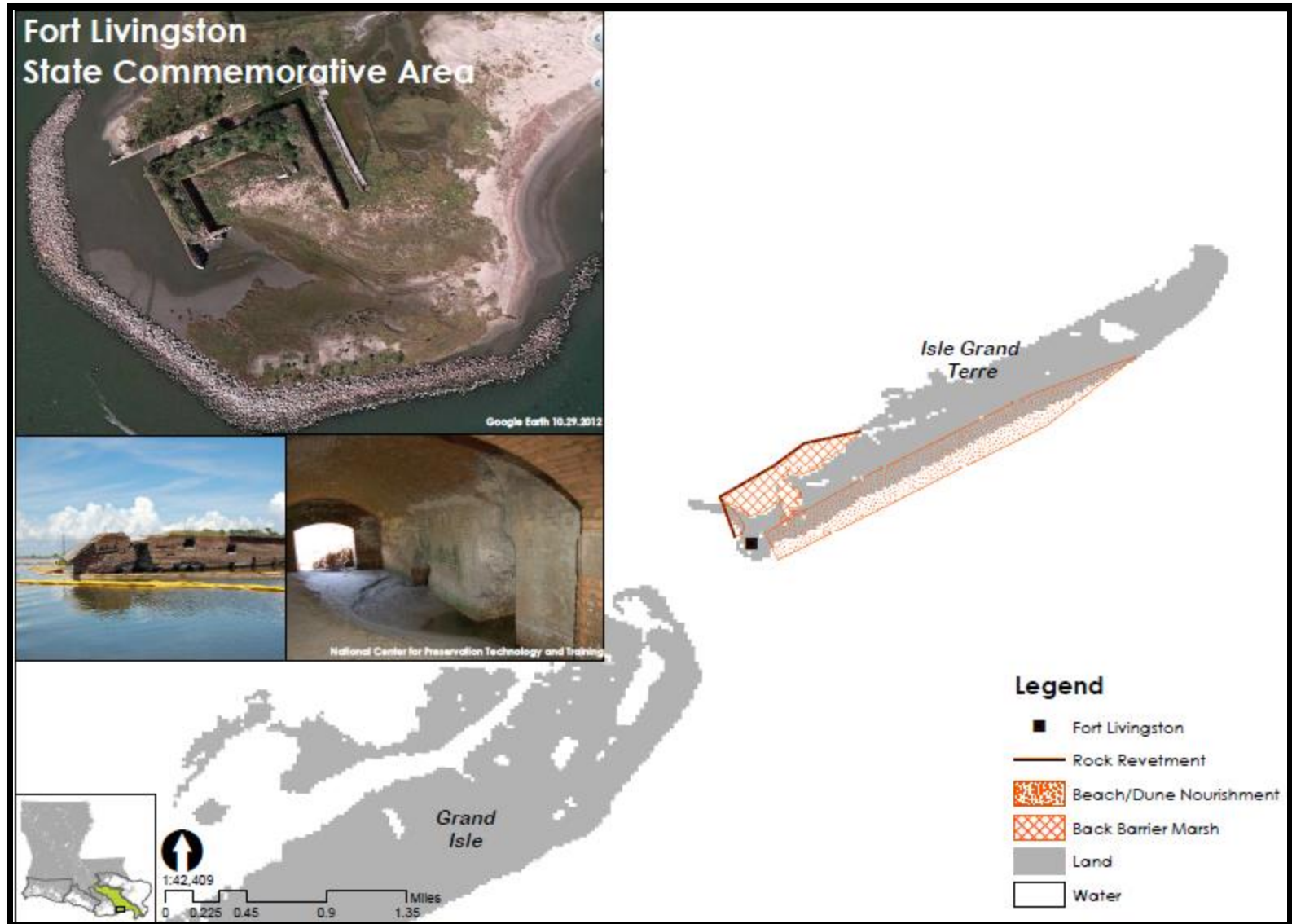
- **Project Status & Anticipated Schedule:**

- E&D Began in Fall 2016
- Completion of Final Design: Summer 2020

- **Project Costs:**

- \$ E&D 7.26 Million
- Construction \$53 Million (estimated)

# West Grand Terre Restoration (BA-197)



Southeast Louisiana Project Update

# **2017 HURRICANE RESPONSE HARVEY, IRMA AND NATE**



# **CPRA Response to Hurricanes Harvey, Irma, & Nate**

- During these events, local levee districts (SLFP AE, SLFP AW, Plaquemines, St. Charles, Terrebonne, USACE, etc...) operated the Flood Gates in accordance with the operating manuals.
- CPRA monitored the activities and reported significant events to the Governor's Unified Command Group

Southeast Louisiana Project Update

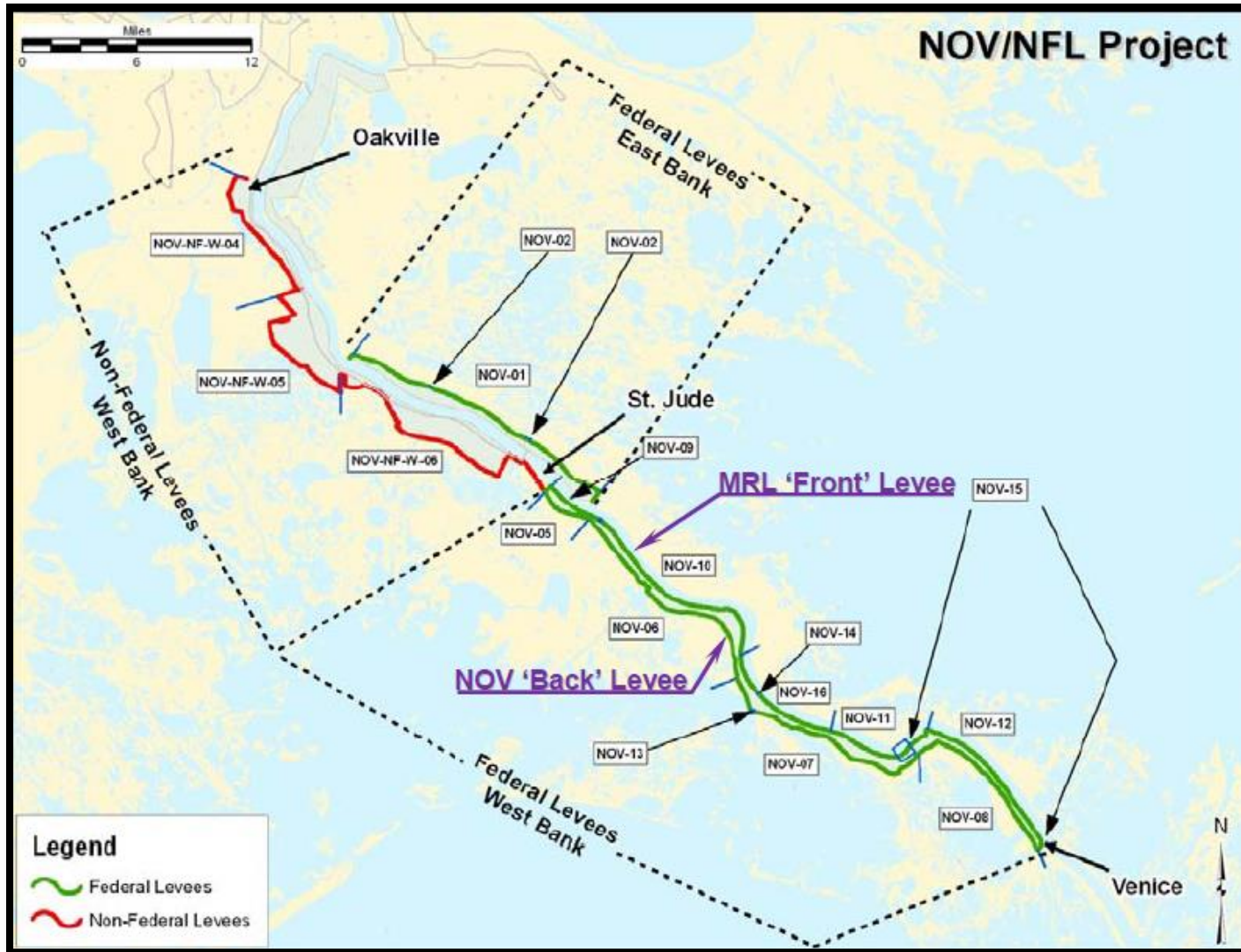
# HURRICANE PROTECTION

# SE Regional Hurricane Protection Projects in Construction

- WBV (BA-66)
- NOV (BA-67)
- Jean Lafitte Tidal Protection (BA-75-1)
- St. Charles West Bank Hurricane Protection Levees (BA-85)
- SELA (PO-57)
- PCCP (PO-60)
- HSDRRS Mitigation
  - WBV & LPV (BA-109, BA-154, and PO-121)



# New Orleans to Venice Levees (BA-67)



# New Orleans to Venice Levees (BA-67)

## STATUS

- 11 Projects in Engineering and Design
- 14 Projects in Construction
  - Numerous reaches are in the process of being turned over
- 4 Projects Completed

# QUESTIONS?

## Contact Information:

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Operations Division

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